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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER	
MICHL,P	
ART UNIT	**PAPER NUMBER**
1511	4

DATE MAILED: 12/08/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
Examiner	Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-113 is/are pending in the application.

Of the above claim(s) 31-59 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-30, 60-113 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claim(s) 1-113 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of References Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-30 and 60-113, drawn to method and composition, classified in Class 524, subclass 496.

II. Claims 31-59, drawn to apparatus, classified in Class 422, subclass 1.

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (M.P.E.P. § 806.05(e)). In this case the method of claim 1 can be practiced without using the apparatus of claim 31. The apparatus of claim 31 can be useful for methods other than that of claim 1.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with James Cairns on November 8, 1997 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-30 and 60-113. Affirmation of this election must be made by applicant in responding to this Office action. Claims 31-59 are withdrawn

from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-13, 16-28, 60, 61, 63, 64, 66 and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hertel or Gurak '377 or Gurak '569 or Giroumaru each in view of either Neubert or Davidson and further in view of either Kobayashi or Horiuchi or Tomizawa. Applicants' claims are directed to a method of coagulating rubber latex with fluid filler and a composition of rubber and filler. Hertel, Gurak '377, Gurak '569, and Giroumaru are all directed to methods of coagulating rubber latex. Neubert discloses a method of coagulating rubber latex using aluminum sulfate. Davidson discloses a method of coagulating rubber latex using lignin. Kobayashi states in column 4, line 16 that aluminum sulfate is a filler. Horiuchi states in column 2, line 57 that lignin is a filler. Tomizawa states in column 3, line 15 that aluminum sulfate is a filler.

Therefore, the aluminum sulfate of Neubert and the lignin of Davidson qualify as "filler" within the scope of applicants' claims. The difference between Hertel, Gurak '377, Gurak '569, and Giroumaru and applicants' claims is the recitation of filler during coagulation. It would be obvious to one of ordinary skill in the art to coagulate rubber latex using aluminum sulfate as taught by Neubert or using lignin as taught by Davidson in the methods taught by Hertel or Gurak '377 or Gurak '569 or Giroumaru. The rationale is that it would be desirable to utilize conventional coagulation materials such as aluminum sulfate or lignin in the coagulation methods of Hertel, Gurak, or Giroumaru since Hertel, Gurak, and Giroumaru teach the presence of a coagulant.

Claims 1-30 and 60-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barclay or Thorn or Hagopian or Sandstrom or Bohm. Applicants' claims are directed to coagulating rubber latex with a carbon black aqueous fluid. Barclay, Thorn, Hagopian, Sandstrom and Bohm all disclose coagulating rubber latex with aqueous carbon black dispersions. The difference between the claims and these references is that the references do not specifically state that the mixing of the latex and the carbon black dispersion is "sufficiently energetic". It would be obvious to one of ordinary skill in the art to coagulate rubber latex with aqueous carbon black

dispersion under conditions which are sufficiently energetic to completely coagulate the rubber in Barclay, Hagopian, Sandstrom, or Bohm. The motivation is that one of ordinary skill would find it desirable to completely coagulate the rubber latex in any of these references.

Claims 1-30 and 60-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barclay or Thorn or Hagopian or Sandstrom or Bohm each in view of either Hertel or Gurak '377 or Gurak '569 or Giroumaru. It would be obvious to one of ordinary skill in the art to coagulate rubber latex with aqueous carbon black dispersion utilizing the coagulation apparatus and methods shown by Hertel or Gurak '377 or Gurak '569 or Giroumaru. The rationale is that it would be desirable to perform the coagulation with carbon black of Barclay or Thorn or Hagopian or Sandstrom or Bohm using conventional rubber latex coagulation processes as taught by Hertel or Gurak or Giroumaru.

Claims 60-112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barclay or Thorn or Hagopian or Sandstrom or Bohm each in view of either Ohashi '088 or Ohashi '833 or Probst. Applicants have presented dependent claims directed to particular carbon blacks such as claims 78-112. The Ohashi and Probst patents are cited for their disclosure of compositions comprising rubber and particular carbon blacks. The carbon black shown by Ohashi '088, Ohashi '833, and Probst are within the scope of

applicants' claims 78-112. It would be obvious to one of ordinary skill in the art to coagulate rubber latex with an aqueous carbon black dispersion as taught by Barclay or Thorn or Hagopian or Sandstrom or Bohm using the particular carbon blacks shown by Ohashi '088 or Ohashi '833 or Probst. The rationale is that one would find it desirable to utilize any carbon black which has been taught as a carbon black filler for rubber in the coagulation process of Barclay or Thorn or Hagopian or Sandstrom or Bohm.

Any inquiry concerning this communication should be directed to Paul Michl at telephone number (703) 308-2451.

The Examiner's supervisor is Vasu Jagannathan phone number (703) 306-2777.

PRMichl:cdc
(703) 308-2351
November 25, 1997

PAUL R. MICHL
PATENT EXAMNINER
ART UNIT 156